



## XP4-D Test Report

10/25/2004

Product Information	
Model Number	XP4-D
Platform	Mini-PC
Version Number	2.0
BIOS Date code	XP40429
Driver CD Number	Power Installer CD V0247
Chipset Details	
Main Chipset Vendor	Intel
North Bridge	845GV
South Bridge	ICH4
I/O Chip Vendor	Winbond W83627HF-AW
Audio Vendor	Realtek ALC650
LAN Chipset Vendor	Realtek RTL8100B
Supports	
1.Supports CPU FSB up to 533MHz.	
2.Supports up to 1GB of PC2700/PC2100/PC1600 DDR SDRAM.	
3.Supports USB 2.0 Interface.	
4.Supports High-End digital audio CODEC.	
5.Supports ATA-100 Interface.	
6.Supports 10/100 high speeds LAN solution.	
Note:	

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## 1. Hardware Designs Check

### 1.1 Mechanical Review

Product Dimensions L 270 mm W 190 mm H 160 mm



Onboard Layout	Placement		
Screw holes combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
PS/2 connectors combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
USB connectors combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
VGA connector combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
COM connectors combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
Printer connector combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
Audio connector combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
CPU FAN retention holes in the PCB.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
PCI slots combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
Front Panel Connectors combine with the case.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
Power connector placement.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None



HDD connector placement.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
CD-in connector placement.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
CPU FAN connector placement.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None
System FAN connector placement.	<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Fail	<input type="checkbox"/> None

Note:

## 1.2 Power Voltage Measurement

Voltage List	Voltage SPEC	Measured Value	Pass/Fail
Battery Voltage	3.0V	3.20v	Pass
Battery Current	5uA	5.02uA	Pass
+5V	5.0V+-5%	5.04	Pass
+12V	12.0V+-5%	11.88	Pass
-5V	-5.0V+-5%	-5.02	Pass
-12V	-12.0V+-10%	-12.15	Pass
+3.3V	+3.3V+-5%	3.34	Pass
+5VSB	5.0V+-5%	5.09	Pass
Clock Frequency	Spec Value (MHz)	Measured Value (MHz)	Pass/Fail
CPU Host Clock	100	100.3	Pass
	133	133.7	Pass
DRAM Clock	100	100.2	Pass
	133	132.3	Pass
PCI Clock	33	33.22	Pass
Reference Clock	14.318	14.37	Pass

Note:



## 2. Chamber Test

Test Environment			
CPU	INTEL Pentium-4 2.8G	IDE1 Primary	Western Digital WD200
DRAM	Infineon 256MB DDR266	IDE1 Secondary	None
AGP	ON-Board 845GV	IDE2 Primary	SONY 48X
PCI 1	3COM 3C905C-TX	IDE2 Secondary	None
PCI 2	None	Floppy	None
PCI 3	None	USB Device	
PCI 4	None	Windows Version	Windows XP Professional
PCI 5	None	BCM Version	2.01
Burn-in Test			Pass/Fail
Corner 1 : Burn-in For High Temperature Testing (40°C / 3.3V/48 Hours)			Pass
Corner 2 : Burn-in For Low Temperature Testing (5°C / 3.3V/48 Hours)			Pass





### 3. BIOS Function Test

#### Test Environment:

BIOS: XP40429

Driver CD: Power Installer 0247

CPU: INTEL PENTIUM-4 2.53G

DRAM: INFINEON 256MB DDR266

AGP: Onboard

Hard Disk: WESTERN DIGITAL WD200 ATA-100

3.1 PC Health Statues	Write Actual Values
Current CPU Temperature	Pass
Current System Temperature	Pass
Current CPU Fan Speed	Pass
Current System Fan Speed	Pass
Vcore	Pass
+2.5V	Pass
+3.3V	Pass
+5.0V	Pass
+12V	Pass
3.2 Systems Boot Up	Pass/Fail
For The BIOS update utility testing. (Write flash)	Pass
BIOS checksum review.	Pass
Clear CMOS with Jumper.	Pass
BIOS function supports review.	Pass
Memory Size Counter Check.	Pass
The BIOS core show out message check.	Pass
Check the systems show up message during the POST.	Pass
Iwill logo check.	Pass
The power SW function test.	Pass
Power LED function check.	Pass
Reset SW function test.	Pass
HDD LED function check.	Pass
Speaker function check.	Pass
Boot sequence test. (For HDD/CD-ROM/DVD/SCSI/USB...)	Pass
RTC data check in the CMOS.	Pass
The USB legacy supports test. (With the USB K/B under DOS mode)	Pass
The Windows booting, restart and shut down test. (For continues loop)	Pass
3.3 Power Management Supports	Pass/Fail
Power Failure Function	---
Former-Sts.	Pass
On.	Pass
Off.	Pass





ACPI Function Test	---
CPU FAN shut down after the systems enter S3 mode.	Pass
Alarm function check after CMOS RTC timeout.	Pass
RTC time out then wake up after the Windows enters S3 mode.	Pass
Power LED off after enter S4 mode.	Pass
With the USB K/B or Mouse wake up the Windows under standby mode.	Pass
<b>3.4 The Onboard Function Test</b>	<b>Pass/Fail</b>
Check the DMI information.	Pass
IDE for CD-ROM/DVD test.	Pass
USB ports for the Keyboard and the Mouse PnP test.	Pass
COM port for serial mouse test.	Pass
LPT port for printer test.	Pass
PCI slots for add on cards PnP test.	Pass
The onboard audio quality testing. (R/L channel check)	Pass
Onboard audio disables test.	Pass
Onboard LAN disables test.	Pass
Link the network after S3 resume.	Pass
Link the network after S4 resume.	Pass
Playing CD/DVD/MP3/WAV/MIDI after S3 resume.	Pass
Playing CD/DVD/MP3/WAV/MIDI after S4 resume. (Hibernate mode)	Pass
With the USB K/B and the Mouse after S3 resume.	Pass
With the USB K/B and the Mouse after S4 resume.	Pass
Note:	





## 4. Performance For Benchmark Test

### Test Environment:

BIOS: XP40129

Driver CD: Power Installer 0247

DRAM: INFINEON DDR266 256MB

VGA: Onboard

Hard Disk: WESTERN DIGITAL WD200 ATA-100

Operating System: WINDOWS XP PROFESSIONAL WITH SP1

Platform	Celeron 2.2G	Pentium 4 2.8G
SiSoft 2003		
CPU Benchmark (Dhrystone ALU) MIPS	5645	7390
CPU Benchmark (Whetstone FPU) MFLOPS	1263/2900	1616/3644
CPU Multi-Media Benchmark (Integer) it/s	8765	11121
CPU Multi-Media Benchmark (Floating) it/s	11174	14164
RAM Int Buffered Bandwidth (MB/s)	1805	1663
RAM Float Buffered Bandwidth (MB/s)	1804	1670
Disk Bench (MB/s)	14412	23487
Note:		
PC Mark 2002		
CPU Score	4997	6723
Memory Score	3625	4687
HDD Score	769	645
Note:		
Winstone 2002		
Business Winstone 2001	33.6	59.4
Content Creation Winstone2002	23.6	33.3
Note:		
3D Mark 2001 SE		
Overall	1092	1317
Note:		
SPEC ViewPerf 6.1.2		
Run3dsmax01	3.464	4.511
DRV-08	10.51	12.63
DX-07	13.77	14.88
Light-05	6.257	8.817
Runproe	3.140	3.326
Note:		



Super_PI (1M)		
Calculated Time	2mins17sec	1min10sec
Note:		



## 5. Software Compatibility Test

### Test Environment:

BIOS: XP40429

Driver CD: Power Installer 0247

CPU: Intel Pentium 4 2.53 GHz

DRAM: INFINEON 256MB DDR266

VGA: Onboard

Hard Disk: WESTERN DIGITAL WD200 ATA-100

5.1 Windows XP Home Edition	Pass/Fail
Setup installation the Windows XP. (APIC function enable)	Pass
The Windows XP patch files installation.	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the Windows.	Pass
Shut down the Windows.	Pass
Enter standby Mode.	Pass
With the PS/2 K/B or Mouse wake up the Windows.	Pass
Scandisk test.	Pass
Setup installation the Microsoft Office 2000.	Pass
Hardware device manager check. (No error mark in the device manager)	Pass
System event viewer check.	Pass
Windows task manager check. (CPU usage history)	Pass
Systems Reboot test.	Pass
Onboard Function Test	
PS/2 keyboard test.	Pass
PS/2 Mouse test	Pass
IDE for HDD test.	Pass
IDE for CD-ROM test.	Pass
IDE for DVD-ROM test.	Pass
Serial Port test.	Pass
Printer Port test.	Pass
LAN port for 10/100 data transfer test.	Pass
PCI Cards Compatibility Test	
PCI Slots for Sound card test.	Pass
PCI Slots for LAN card test.	Pass
PCI Slots for SCSI card test.	Pass
USB Devices Compatibility Test	
USB ports for Keyboard PnP/restart/S3 resume test.	Pass
USB ports for Mouse PnP/restart/S3 test.	Pass
USB ports for Printer PnP/restart/S3 test.	Pass
USB ports for Scanner PnP/restart/S3 test.	Pass
USB ports for joystick PnP/restart/S3 test.	Pass
USB ports for HDD PnP/restart/S3 test.	Pass



USB ports for Camera PnP/restart/S3 test.						Pass
VGA Quality Review						
Check the shadows on the screen.						Pass
Check the ripples on the screen.						Pass
Playback for VCD test.						Pass
Playback for DVD test.						Pass
Playback for MPEG test.						Pass
3D Mark2001 SE for continues loop test. (More than 1 hour)						Pass
Business Winstone 2001 test.						Pass
Content Creation Winstone 2002 test.						Pass
Onboard VGA Resolution Test						
Resolution	Colors	Optimal	75	85	100	Pass/Fail
800x600	16 bit	√	√	√	√	Pass
800x600	32 bit	√	√	√	√	Pass
1024x768	16 bit	√	√	√	√	Pass
1024x768	32 bit	√	√	√	√	Pass
1152x864	16 bit	√	√	√	√	Pass
1152x864	32 bit	√	√	√	√	Pass
1280x1024	16 bit	√	√	√	√	Pass
1280x1024	32 bit	√	√	√	√	Pass
Onboard Audio Test						
Playback audio CD for noise test.						Pass
Check R/L channel for earphone.						Pass
Record test.						Pass
CD-in connector check.						Pass
Line-in connector check.						Pass
MIC-in connector check.						Pass
Power Manager For the Windows						
Suspend to RAM (S3 mode) test.						Pass
WOL test after enter S3 mode.						Pass
RTC wake up test for a scheduled task enable.						Pass
Hardware device manager check after S3 mode resume.						Pass
Suspend to hard disk (Hibernate) test.						Pass
Hardware device manager check after hibernate (S4 mode) resume.						Pass
Utilities Test						
PC Mark2002 test.						Pass
Winbench 99 v2.0.						Pass
Content Creation Winstone2002 test.						Pass
Business Winstone2001 test.						Pass
3D Mark2001 SE test.						Pass
3D Winbench 2000.						Pass



SiSoft Sandra 2003 test.	Pass
Quake III Demo test.	Pass
Super PI (1M) test.	Pass
BCM Diagnostic test. (Include the DMI information review)	Pass
CPU stability test.	Pass
Power Strip test.	Pass
WCPUID test.	Pass
Games Test	
AOE II.	Pass
MOTO GP.	Pass
Note:	



### Test Environment:

BIOS: XP40129

Driver CD: Power Installer 0247

CPU: Intel Pentium 4 2.26 GHz

DRAM: VM VM VT56DD32M8PC-7, DDR266, 512MB

Display: On board chipset (Intel 82845G Graphics Controller)

Hard Disk: IBM DJNA-352500, Ultra DMA66, 25GB

5.2 Windows XP Professional	Pass/Fail
Setup installation the Windows XP.	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the Windows.	Pass
Shut down the Windows.	Pass
Enter Stand By mode.	Pass
With the PS/2 K/B or Mouse wake up the Windows.	Pass
Scandisk test.	Pass
Setup installation the Microsoft Office 2000.	Pass
Hardware device manager check.	Pass
System event viewer check.	Pass
Windows task manager check. (CPU usage history)	Pass
Power Management For the Windows	
Suspend to RAM (S3 mode) test.	Pass
WOL test after enter S3 mode.	Pass
RTC wake up test for a scheduled task enable.	Pass
Hardware device manager check after S3 mode resume.	Pass
Suspend to hard disk (Hibernate) test.	Pass
Hardware device manager check after hibernate (S4 mode) resume.	Pass
Memory Compatibility Test	
Bmem memory test for continues loop 200 times.	Pass
Content Creation Winstone2002 test for continues loop 5 times.	Pass
Suspend to RAM (S3 Mode) test.	Pass
Utilities Test	
Reboot test.	Pass
Winbench 99 v2.0.	Pass
PC Mark2002 test.	Pass
Content Creation Winstone2002 test.	Pass
Business Winstone2001 test.	Pass
3D Mark2001 SE test.	Pass
SiSoft Sandra 2002 test.	Pass
Super PI (1M) test.	Pass
BCM Diagnostic test.	Pass
CPU stability test.	Pass
Power Strip test.	Pass



WCPUID test.	Pass
Note:	





### Test Environment:

BIOS: XP41029

Driver CD: 0247

CPU: Intel Pentium 4 2.4 GHz

DRAM: ATP SAMSUNG PC2100 1GB

AGP: Onboard

Hard Disk: MAXTOR 2R015H1

5.3 Windows 2000 Profession SP3	Pass/Fail
Setup installation the Windows 2000. (APIC function enable)	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the Windows.	Pass
Shut down the Windows.	Pass
Enter standby Mode.	Pass
With the PS/2 K/B or Mouse wake up the Windows.	Pass
Hardware device manager check.	Pass
System event viewer check.	Pass
Windows task manager check. (CPU usage history)	Pass
Scandisk test.	Pass
Setup installation the Microsoft Office 2000.	Pass
Onboard Function Test	
PS/2 keyboard test.	Pass
PS/2 Mouse test.	Pass
FDD function test. (Format/Read/Wrote)	Pass
IDE for HDD test.	Pass
IDE for CD-ROM test.	Pass
IDE for DVD-ROM test.	Pass
Serial Port test.	Pass
Printer Port test.	Pass
LAN port for 10/100 data transfer test.	Pass
LAN port for ADSL test.	Pass
PCI Slots for Sound card test.	Pass
PCI Slots for LAN card test.	Pass
PCI Slots for SCSI card test.	Pass
USB Ports Function test.	Pass
Onboard AC97 Audio CODEC test.	Pass
Power Manager For the Windows	
Suspend to RAM (S3 mode) test.	Pass
RTC wake up test for a scheduled task enable.	Pass
Hardware device manager check after S3 mode resume.	Pass
Suspend to hard disk (Hibernate) test.	Pass
Utilities Test	
Reboot test.	Pass



Winbench 99 v2.0	Pass
BCM 2.01 Stress test.	Pass
Note:	



### Test Environment:

BIOS: XP40129

Driver CD: 0247

CPU: Intel Pentium 4 1.7 GHz

DRAM: APACER NANYA DDR 266 128 MB

AGP: Onboard

Hard Disk: SEAGATE ST340016A

5.4 Windows Me	Pass/Fail
Setup installation the Windows Me.	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the Windows.	Pass
Shut down the Windows.	Pass
Enter standby Mode.	Pass
With the PS/2 K/B or Mouse wake up the Windows.	Pass
Hardware device manager check.	Pass
Scandisk test.	Pass
Setup installation the Microsoft Office 2000.	Pass
Onboard Function Test	
PS/2 keyboard test.	Pass
PS/2 Mouse test.	Pass
FDD function test. (Format/Read/Wrote)	Pass
IDE for HDD test.	Pass
IDE for CD-ROM test.	Pass
IDE for DVD-ROM test.	Pass
Serial Port test.	Pass
Printer Port test.	Pass
LAN port for 10/100 data transfer test.	Pass
LAN port for ADSL test.	Pass
PCI Slots for Sound card test.	Pass
PCI Slots for LAN card test.	Pass
PCI Slots for SCSI card test.	Pass
USB ports Function test.	Pass
Onboard AC97 Audio CODEC test.	Pass
Utilities Test	
BCM 2.01 Stress test.	Pass
Note:	



### Test Environment:

BIOS: XP40129

Driver CD: 0247

CPU: INTEL PENTIUM-4 1.7 GHz

DRAM: APACER NANYA DDR266 128MB

AGP: ON BOARD

Hard Disk: SEAGATE ST340016A

5.5 Windows 98 SE	Pass/Fail
Setup installation the Windows 98SE.	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the Windows.	Pass
Shut down the Windows.	Pass
Enter standby Mode.	Pass
Hardware device manager check.	Pass
Scandisk test.	Pass
Setup installation the Microsoft Office 2000.	Pass
Onboard Function Test	
PS/2 keyboard test.	Pass
PS/2 Mouse test.	Pass
FDD function test. (Format/Read/Wrote)	Pass
IDE for HDD test.	Pass
IDE for CD-ROM test.	Pass
IDE for DVD-ROM test.	Pass
Serial Port test.	Pass
Printer Port test.	Pass
LAN port for 10/100 data transfer test.	Pass
LAN port for ADSL test.	Pass
PCI Slots for Sound card test.	Pass
PCI Slots for LAN card test.	Pass
PCI Slots for SCSI card test.	Pass
USB ports PnP test.	Pass
Onboard AC97 Audio CODEC test.	Pass
Note:	



### Test Environment:

BIOS: XP40129

CPU: Intel Pentium4 2.53 GHz

DRAM: INFINEON DDR266 256MB

AGP: Onboard

Hard Disk: WESTERN DIGITAL WD200 ATA-100

Operating System: DOS

5.6 MS-DOS Mode	Pass/Fail
MS-DOS Command	---
FDISK	Pass
Format	Pass
Copy	Pass
Utilities Test	---
BCM for memory test. (BMEM)	Pass
Checkit 4.0	---
System Board Test	Pass
Memory Test	Pass
Hard Disk Test	Pass
Floppy Test	Pass
Serial Port Test (Loop back)	Pass
Parallel Port Test (Loop back)	Pass
Modem Test	Pass
Video Card Test	Pass
Printer Test	Pass
Keyboard Test	Pass
Note:	



### Test Environment:

BIOS: XP40129

Driver CD: 0247

CPU: Intel Pentium4 1.7GHz

DRAM: ATP Samsung PC2100 1GB

AGP: Onboard

Hard Disk: Seagate ST340016A

5.7 Linux Red Hat 8.0	Pass/Fail
Setup installation the Linux Red Hat 8.0.	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the systems.	Pass
Shut down the systems.	Pass
Onboard Function Test	
PS/2 keyboard test.	Pass
PS/2 Mouse test	Pass
FDD function test. (Format/Read/Wrote)	Pass
IDE for HDD test.	Pass
IDE for CD-ROM test.	Pass
IDE for DVD-ROM test.	Pass
Serial Port test.	Pass
Printer Port test.	Pass
LAN port for 10/100 data transfer test.	Pass
LAN port for ADSL test.	Pass
PCI Slots for Sound card test.	Pass
PCI Slots for LAN card test.	Pass
PCI Slots for SCSI card test.	Pass
USB ports test.	Pass
Note:	



## 6. Power Installer CD Software Compatibility Test

### Test Environment:

BIOS: XP40129

Driver CD: Power Installer 0247

CPU: Intel Pentium 4 2.53 GHz

DRAM: INFINEON 256MB DDR266

AGP: Onboard

Hard Disk: MAXTOR D740X-6L

Operating Systems List	Pass/Fail
Setup installation the Power Installer CD for the Windows98 FE.	Pass
Setup installation the Power Installer CD for the Windows98 SE.	Pass
Setup installation the Power Installer CD for the Windows Me.	Pass
Setup installation the Power Installer CD for the Windows 2000.	Pass
Setup installation the Power Installer CD for the Windows XP Home Edition.	Pass
Setup installation the Power Installer CD for the Windows XP Professional.	Pass
Note:	





## 7. Heavy Load Test

### Test Environment:

BIOS: XP40129

Driver CD: 0247

OS: Windows2000 SP2

CPU0: Pentium 4 2.6 GHz

DIMM0: TwinMOS Hynix HY5DU28822AT-K, 256MB PC2100

AGP: Onboard 845G Graphics

IDE0 Master: Maxtor 6L060J3 DMA133

Windows 2000 Profession SP2	Pass/Fail
Setup installation the Windows 2000.	Pass
Setup installation the Iwill power installer CD.	Pass
Restart the Windows.	Pass
Hardware device manager check.	Pass
Setup installation the HCT 9.502.	Pass
HCT 9.502 List	
Test Disk load A:/C:/D:/E:/F:/G:/H:/I:/J...	Pass
HCT 9.502 System Stress test for 48 hours.	Pass





## 8. Hardware Compatibility List

8.1 Camera Device				
Vendor	Model No	Interface		Result
Canon	Power Shot S40	USB		Pass
Note:				
8.2 CD-ROM				
Vendor	Model No	Interface	Speed	Result
ACER	624A-106	IDE	24X	Fail (holder)
Aopen	CD-948E	IDE	48X	Pass
Aopen	DVD1648	IDE	48X	Pass
GENUINE	GC-845	IDE	45X	Pass
Panasonic	SR-8588-B	IDE	32X	Pass
SONY	CDU4811	IDE	48X	Pass
TEAC	CD-532E	IDE	32X	Pass
TEAC	CD-540E	IDE	40X	Pass
BENQ	652A	IDE	52X	Pass
MSI	C52	IDE	52X	Pass
SONY	CDU-5221	IDE	52X	Pass
Aopen	CD-952E	IDE	52X	Pass
Note:				
8.3 CPU				
Vendor	Model No	Frequency	FSB	Result
Intel	Pentium 4	1.7 GHZ	400 MHZ	Pass
Intel	Pentium 4	1.8 GHz	400 MHZ	Pass
Intel	Pentium 4	1.9 GHz	400 MHZ	Pass
Intel	Pentium 4	2.0 GHz	400 MHZ	Pass
Intel	Pentium 4 ES	2.2 GHz	533 MHZ	Fail
Intel	Pentium 4	2.26 GHz	533 MHZ	Pass
Intel	Pentium 4	2.4 GHz	533 MHZ	Pass
Intel	Pentium 4	2.53 GHz	533 MHZ	Pass
Intel	Pentium 4	2.5 GHz	400 MHZ	Pass
Intel	Pentium 4	2.6 GHz	400 MHZ	Pass
Intel	Pentium 4	2.66 GHz	533 MHZ	Pass
Intel	Pentium 4	2.8 GHz	533 MHZ	Pass
Intel	Pentium 4	3.06 GHz	533 MHZ	Pass
Intel	Celeron	1.7 GHz	400 MHZ	Pass
Intel	Celeron	1.8 GHz	400 MHZ	Pass
Intel	Celeron	2.0 GHz	400 MHZ	Pass
Intel	Celeron	2.2 GHz	400 MHZ	Pass



Intel	Celeron	2.4GHz	400MHz	Pass
Intel	Celeron	2.6GHz	400MHz	Pass
Intel	Celeron	2.8GHz	533MHz	Pass

Note: Bios SEP/30/2004 Support Celeron D Type CPU(Prescott)

#### 8.4 DVD-ROM

Vendor	Model	Interface	Speed	Result
Aopen	DVD1648	IDE	16X	Pass
AFREYY	DD-4010E	IDE	10X	Pass
ASUS	DVD-E612	IDE	12X	Pass
BTC	BDV-316B	IDE	16X	Pass
SONY	DDU220-E	IDE	5X	Pass
SONY	DDU1621	IDE	16X	Pass
Panasonic	SR-8583-B	IDE	5X	Pass
Panasonic	SR-8588-B	IDE	16X	Pass
Pioneer	DVD-120RD	IDE	16X	Pass
LiteOn	LTD-163D	IDE	16X	Pass
Teac	DV-516	IDE	16X	Fail (holder)
4KUS	DVD 16X6S	IDE	16X	Pass
Pioneer	DVD-121	IDE	16X	Pass
LITE-ON	LTR-52327S	IDE	52X/32X/52X	Pass
LITE-ON	XJ-HD166S	IDE	16X	Pass
LEMEL	LDV-1648L	IDE	16X	Fail (holder)
ASUS	DVD-E616P1	IDE	16X	Pass
SONY	CRX300A	IDE	48X/32X/48X	Fail (holder)
Plextor	PX-116A	IDE	16X	Pass
February	CR-T87-B	IDE	12X	Pass

Note:

#### 8.5 HDD

Vendor	Model No	Size	Interface	Result
FUJITSU	MPE3102AT	10.2G	IDE 66	Pass
IBM	DTTA-350640	6.4G	IDE 33	Pass
IBM	DJNA-352500	25G	IDE 66	Pass
IBM	IC35L040AVVN07	40G	IDE 100	Pass
IBM	IC35L060AVVA07	60G	IDE 100	Pass
IBM	DTTA-350640	35G	IDE 100	Pass
IBM	IC35L060AVER07-0	60G	IDE 100	Pass
Maxtor	2R015H1	15G	IDE 100	Pass
Maxtor	D740X-6L	60G	IDE 133	Pass
Maxtor	6L060J3	60G	IDE 133	Pass



Maxtor	D740X-6L	80G	IDE 100	Pass
Maxtor	D740X-6L	60G	IDE 100	Pass
Quantum	CR4300AT	4.3G	IDE 66	Pass
Quantum	CX10200AT	10.2G	IDE 66	Pass
Quantum	CX13000AT	13G	IDE 66	Pass
Western Digital	14300	4.3G	IDE 66	Pass
Western Digital	WD200AB-00BVA	20G	IDE 66	Pass
Western Digital	WD200EB	20G	IDE 100	Pass
Western Digital	WD400BB	40G	IDE 100	Pass
Western Digital	WD-200EB	20G	IDE 100	Pass

Note:

### 8.6 Joystick

Vendor	Model No	Interface	Result
Logitech	Wingman	USB	Pass
Microsoft	Side Winder Joystick	USB	Pass

Note:

### 8.7 Keyboard

Vendor	Model No	Interface	Result
ACER	6511-TA	PS/2	Pass
ACER	6311-TW4C	PS2	Pass
BTC	8110M	USB	Pass
BTC	5126	PS2	Pass
BTC	5121	PS2	Pass
BUS LOGIC	BA81C15	PS2	Pass
Genuine	K288	PS/2	Pass
Genuine	K388P	PS2	Pass
K.A.CHEN	KB-7000	PS/2	Pass
LEMEL	KB-5122D-P	PS2	Pass
Logitech	Y-SA2	PS/2	Pass
Microsoft	X03-51764	USB / PS/2	Pass
Microsoft	RT9401	USB / PS/2	Pass
SAMPO	F-21BM	PS2	Pass
Unikey	KWP-840 US	PS2	Pass

Note:

### 8.8 LAN Card

Vendor	Model No	Type	Result
3 COM	3C905B	PCI	Pass
3 COM	3C905C	PCI	Pass



ACCTON	EN1207D-TX	PCI	Pass
D-Link	DE-530CT+	PCI	Pass
D-Link	DEF-530TX	PCI	Pass
D-Link	DEF-550TX	PCI	Pass
Intel	S82550	PCI	Pass
Intel	S82559	PCI	Pass
Realtek	RTL8139B	PCI	Pass
Realtek	RTL8139C	PCI	Pass

Note:

### 8.9 LAN HUB

Vendor	Model No	Transfer Rate	Result
3COM 100/10	Switch office400	100/10	Pass
3COM	Super Stack 3	100/1000	Pass
BUFFLO	LSW 10/100-8H	100/10	Pass
D-Link	DE-812TP+	10-Base	Pass
D-Link	DE-805TP	10-Base	Pass
D-Link	DE-809TC	10-Base	Pass

Note:

### 8.10 DDR Memory

Vendor	Model No	Size	Speed	Result
ADATA	Winbond W942508BH-5	256M	DDR400	Pass
Apacer	Infineon HYB25D128800AT-7A	256M	DDR266	Pass
Apacer	Winbond W942508BH-5	256M	DDR400	Fail
Apacer	Winbond W942508BH-5	512M	DDR400	Pass
ATP	AG28L64C8SMB0S	1GB	DDR266	Pass
ATP	AG28L64C8SMB3S	1GB	DDR333	Pass
ATP	Samsung K4H280838B-TCB0	128M	DDR266	Pass
Buffalo	Toshiba TC59WM807BFT-75	512M	DDR266	Pass
Corsair Micro	MT 46V16M8-75A	128M	DDR300	Pass
Corsair Micro	MT 46V16M8-75A	256M	DDR300	Pass
Hyundai	Hyundai HY5DU28822T-H	128M	DDR266	Pass
HCD	Samsung K4H280838-TCB0	256M	DDR266	Pass
KingMax	KingMax KDL684T4A2A-05	256M	DDR333	Pass
KingMax	KingMax KDL684T4A2A-06	256M	DDR300	Pass
KingMax	KingMax KDL684T4AA-50	128M	DDR400	Pass
KingMax	KingMax KDL684T4AA-50	256M	DDR400	Pass
Micron	MT 46V16M8-5	128M	DDR400	Fail
Micron	MT 46V16M8-5	256M	DDR400	Fail
M-tec	M-tec TTD7608F8E75B	512M	DDR266	Pass



NANYA	NT5DS16M8AT-6-CL2.5	512M	DDR333	Pass
NANYA	NT5DS32M8AT-7K	256M	DDR333	Pass
NANYA	NT5DS32M8AT-7K	512M	DDR266	Pass
NEC	NEC D45D128842G5-C75-9LG	128M	DDR266	Pass
SAMSUNG	SAMSUNG K4H280838D-TCB4	256M	DDR400	Pass
SAMSUNG	SAMSUNG K4H280838D-TCC4	128M	DDR400	Fail
SAMSUNG	SAMSUNG K4H280838D-TCC4	256M	DDR400	Fail
SAMSUNG	SAMSUNG K4H280838D-TCC4	512M	DDR400	Fail
TwinMOS	SAMSUNG K4H560838C-TCB3	256M	DDR333	Pass
TwinMOS	TwinMOS TMD7608F8E50B	256M	DDR400	Pass
VM	VM VT56DD32M8PC-7	256M	DDR266	Pass
VM	VM VT56DD32M8PC-7	512M	DDR266	Pass
ELPIDA	1GB 184P DDR	1G	DDR266	Pass

Note:

#### 8.11 Modem

Vendor	Model No	Type	Result
Actiontec	56KPCI Pro	PCI	Pass
ADI	MDX-56KRE	External	Pass
ADI	NW58-11	External	Pass
Aopen	C1701	External	Pass
Aopen	FM56-PM	PCI	Pass
Aztech	MDP-3880W-B	PCI	Pass
D-Link	DHN-520	PCI	Pass
GENUINE	E336RXV	PCI	Pass
GENUINE	GM56RVD	PCI	Pass
GVC	F1156IV/EID	PCI	Pass
GVC	FM-56PCI	External	Pass
Intel	536EP/V.92	PCI	Pass
INTERSTAR	PANTHER-5600PB	PCI	Pass
M-G	MG56AMR	PCI	Pass
PINE	PF-X02A-10	PCI	Pass
Well	FM-56AMR-SL	PCI	Pass

Note:

#### 8.12 Monitor

Vendor	Model No	Size	Type	Result
ADi	Micro Scan	15"	CRT	Pass
GENUINE	G585	14"	CRT	Pass
View Sonic	VX500	15"	LCD	Pass
View Sonic	E653	15"	CRT	Pass





SAMPO	Alpha scan 521a	15"	CRT	Pass
View Sonic	17GA	17"	CRT	Pass
View Sonic	GF775	17"	CRT	Pass
View Sonic	PS775	17"	CRT	Pass
View Sonic	E70	17"	CRT	Pass
PHILIPS	107MP	17"	CRT	Pass
SAMPO	Alpha Scan 761	17"	CRT	Pass
SAMPO	Alpha Scan 712 a	17"	CRT	Pass
MOZO	MZ1700	17"	LCD	Pass

Note:

### 8.13 Mouse

Vendor	Model No	Interface	Result
Aero	IM-PC20	Serial	Pass
ARTEC	ITEUEC 19604966	PS2	Pass
DEXIN	MA21	PS2	Pass
DEXIN	A2U800A	USB	Pass
GENUINE	K3P400A	PS2	Pass
Logitech	Cordless Freedom Navigator	USB; PS2	Pass
Logitech	Cordless Wheel	PS2	Pass
Logitech	M-MM43	Serial	Pass
Logitech	M-S43	PS2	Pass
NEC		PS2	Pass
QTRONIX		PS2	Pass
Venus		Serial	Pass
Venus		Serial	Pass
X'TEC		Serial	Pass

Note:

### 8.14 Power Supply

Vendor	Model No	Type	Result
Chyang Fun	CWT-150FXC (150W MAX)	150W	Pass

Note:

### 8.15 Printer

Vendor	Model No	Interface	Result
HP	Laser 5MP	LPT	Pass
EPSON	EPL580L	USB	Pass

Note:





8.16 Scanner			
Vendor	Model No	Interface	Result
Plustek	OpticPro 9636T	LPT	Pass
UMAX	Astra 1220S	SCSI	Pass
HP	ScanJet 5200C	USB; Print Port	Pass
HP	ScanJet 3400C	USB; Print Port	Pass
Note:			
8.17 SCSI Card			
Vendor	Model No	Type	Result
Adaptec	AHA-3950U2B	PCI	Pass
Adaptec	ASC-39160	PCI	Pass
Advansys	ABP-940/70UW70	PCI	Pass
Iwill	SIDE-2930C	PCI	Pass
Tekram	DC-390U2B	PCI	Pass
Tekram	DC-395UW	PCI	Pass
Tekram	DC310/310U	PCI	Pass
Tekram	DC-390U2W	PCI	Pass
Tekram	DC-390F	PCI	Pass
Note:			
8.18 Sound Card			
Vendor	Model No	Interface	Result
Areal	Vortex	PCI	Pass
CMI	8738	PCI	Pass
Creative	Sound Blaster Live	PCI	Pass
Creative	Sound Blaster Audigy	PCI	Pass
Creative	Sound Blaster 5.1	PCI	Pass
ESS	ES1948F C237	PCI	Pass
Top Solution	Xwave	PCI	Pass
Top Solution	Live 6CH	PCI	Pass
Note:			
8.19 USB Device			
Vendor	Model No	Result	
Adaptec	XHUB4+ (USB2.0 HUB)	Pass	
EPSON	EPL580L (USB2.0 Printer)	Pass	
EPSON	PERFECTION 2450 (USB2.0 Scanner)	Pass	
Fujitsu	USB 1300 MO (USB2.0 MO)	Pass	
Genuine	USB/PS2 Mouse	Pass	
IBM	IC25N020ATDA04-0 (USB2.0 HDD)	Pass	



JS	J6502 (USB Speakers)	Pass		
Plextor	PX-S88TU (USB 2.0 CD-RW)	Pass		
QTRPNIX	Scorpius 980N (USB Keyboard)	Pass		
Mitsumi	D353GUE (USB Floppy)	Pass		
Logitech	M-UB48 (USB Keyboard)	Pass		
Chicony	KU-8933 (USB Keyboard)	Pass		
BTC	7932 (USB Keyboard)	Pass		
ACK	ACK-298 (USB Keyboard)	Pass		
Life View	RoboCam	Pass		
Logitech	Quick Cam PRO	Pass		
Note:				
8.20 ZIP/LS120				
Vendor	Model	Size	Type	Result
Iomega	DDXZ100S2	100MB	ZIP	Pass
Iomega	Z250P	250MB	ZIP	Pass
Note:				



## 9.0 CPU Transient test

### 9.1 CPU Transient measured:

	Blue cells need to be filled in with lab measurement
	Yellow cells need to have the overall design tolerance entered

<b>VID Voltage:</b>	1.550	V
<b>Tolerance:</b>	0.00%	Overall
<b>+Tolerance</b>	0.000	V
<b>- Tolerance</b>	0.000	V

Static Voltage Measurements at pins AC14/AC15		
Current	Measured Static Voltage	Units
5	1.522	V
14	1.511	V
28	1.493	V
42	1.474	V
56	1.452	V
70	1.426	V

Ripple Voltage Measurements (mV) at pins AC14/AC15		
Current	Measurement	Units
5	8.400	mV
14	9.800	mV
28	13.600	mV
42	18.000	mV
56	14.400	mV
70	15.000	mV

Transient Min (mV) at pins AC14/AC15			
Load Step	Current	Measurement	Units
5A to 5A	5	0.00	mV
5A to 14A	14	13.10	mV
5A to 28A	28	43.40	mV
5A to 42A	42	71.00	mV
5A to 56A	56	99.00	mV
5A to 70A	70	126.50	mV

Transient Max (mV) at pins AC14/AC15			
Load Step	Current	Measurement	Units
55A to 5A	55	106.50	mV
		21.80	us



## 9.2 CPU Transient Loadline

